

# APPARATUS AND METHOD FOR TRANSMITTING TERRESTRIAL SIGNALS ON A COMMON FREQUENCY WITH SATELLITE TRANSMISSIONS

## **ABSTRACT OF THE INVENTION**

A first antenna (16) at a user location (14) receives signals at a first frequency where the signals are travelling only within a first directional reception range as measured from a centerline (28) of the first antenna (16). The first antenna (16) has its centerline (28) aligned to receive direct broadcast satellite signals transmitted from a satellite in geosynchronous orbit about the earth. A second antenna (18) at the user location (14) receives signals at the first frequency where the signals are travelling only within a second directional reception range as measured from a centerline (30) of the second antenna (18). The second antenna (18) is aligned to receive signals transmitted at the first frequency from a terrestrial transmitting location remote from the user location. A terrestrial transmitter transmits signals at the first frequency and directionally within a terrestrial azimuth range from the terrestrial transmitting location. The terrestrial transmitting location is located with respect to the user location (14) such that the terrestrial transmitter (20) transmits in directions only outside of the directional reception range of the first antenna (16). The satellite (12) is positioned with respect to the user location (14) such that the satellite transmits directionally in directions outside of the directional reception range of the second antenna (18).

I:\MJR\n-r\NPT\107\application.107.cont.wpd